

**Notice of Allowability**

Application No.

10/633,964

Examiner

Jean E. Lesperance

Applicant(s)

INUKAI, KAZUTAKA

Art Unit

2629

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed July 25, 2007.
2. ☒ The allowed claim(s) is/are 2-40, and renumbered as 1-39.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 9-15-03
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

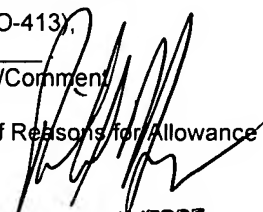
5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other \_\_\_\_\_

  
RICHARD HJERPE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER

### DETAILED ACTION

1. The amendment filed July 25, 2007 is entered and claims 2-40 are pending.

#### ***Allowable Subject Matter***

2. Claims 2 to 40 are allowed.
3. The following is an examiner's statement of reasons for allowance: the claimed invention is directed to a display device.

Independent claim 2 identifies a uniquely distinct feature "wherein at least four data lines extend in each one of the pixel columns, and wherein the at least four data lines are connected to different data drivers".

Independent claim 3 identifies a uniquely distinct feature "a first pixel and a second pixel arranged in the same column direction in the pixel portion, wherein each of the first pixel and the second pixel comprises a switching transistor and a light emitting element; a first data line electrically connected to the switching transistor of the first pixel; and a second data line electrically connected to the switching transistor of the second pixel".

Independent claim 4 identifies a uniquely distinct feature "wherein at least one scanning driver is provided to select at least two scanning lines out of the plurality of scanning lines simultaneously, and wherein at least two data drivers are provided to simultaneously supply signals to at least two pixels selected out of the plurality of pixels through the at least two data lines extending in each one of the pixel columns".

Independent claim 5 identifies a uniquely distinct feature “wherein at least one scanning driver is provided to select at least two scanning lines out of the plurality of scanning lines simultaneously, and wherein at least two data drivers are provided to simultaneously supply signals to at least two pixels selected out of the plurality of pixels through the at least two data lines extending in each one pixel column”.

Independent claim 19 identifies a uniquely distinct feature “in the writing period, selecting two scanning lines simultaneously by at least one scanning driver, and simultaneously supplying signals by the at least two data drivers to at least two pixels selected out of the plurality of pixels through the at least two data lines extending in each one of the pixel columns”.

Independent claim 20 identifies a uniquely distinct feature “in the writing period, selecting two scanning lines simultaneously by at least one scanning driver, and simultaneously supplying signals by the at least two data drivers to at least two pixels selected out of the plurality of pixels through the at least two data lines extending in each one of the pixel columns”.

Independent claim 21 identifies a uniquely distinct feature “wherein a first data line of the plurality of data lines is electrically connected to the first switching transistor; wherein a second data line of the plurality of data lines is electrically connected to the second switching transistor; wherein a first scanning line of the plurality of scanning lines is electrically connected to the first switching transistor; wherein a second scanning line of the plurality of scanning lines is electrically connected to the second

switching transistor; and wherein each of the plurality of pixels, the first pixel and the second pixel comprises the a tight-emitting element”.

Independent claim 23 identifies a uniquely distinct feature “a first data driver for supplying a video signal to the pixels which are arranged in first to  $m/2$ -th rows and in odd-numbered rows; a second data driver for supplying a video signal to the pixels which are arranged in first to  $m/2$ -th rows and in even-numbered rows; a third data driver for supplying a video signal to the pixels which are arranged in  $(m/2+1)$ -th to  $m$ -th rows and in odd-numbered rows; a fourth data driver for supplying a video signal to the pixels which are arranged in  $(m/2+1)$ -th to  $m$ -th rows and in even-numbered rows; a first scanning driver for controlling the scanning lines extending in the first to  $m/2$ -th rows; a second scanning driver for controlling the scanning lines extending in the  $(m/2+1)$ -th to  $m$ -th rows; and at least two data lines of the plurality of data lines extending in each one pixel column”.

Independent claim 24 identifies a uniquely distinct feature “a first data driver for supplying a video signal to the pixels arranged in a  $m$ -th row; a second driver for supplying a video signal to the pixels arranged in a  $(m+1)$ -th row; a third data driver for supplying a video signal to the pixels arranged in a  $(m+2)$ -th row; a fourth data driver for supplying a video signal to the pixels arranged in a  $(m+3)$ -th row; a first scanning driver for controlling the scanning line extending in the  $m$ -th row; a second scanning driver for controlling the scanning line extending in the  $(m+1)$ -th row; a third scanning driver for controlling the scanning line extending in the  $(m+2)$ -th row; and a fourth scanning driver for controlling the scanning line extending in the  $(m+3)$ -th row”.

Independent claim 25 identifies a uniquely distinct feature "a first data driver for supplying a video signal to the pixels which are arranged in first to  $m/4$ -th rows through the data lines; a second data driver for supplying a video signal to the pixels which are arranged in  $(m/4+1)$ -th rows to  $m/2$ -th row through the data lines; a third data driver for supplying a video signal to the pixels which are arranged in  $(m/2+1)$ -th row to  $3m/4$ -th rows through the data lines; a fourth data driver for supplying a video signal to the pixels which are arranged in  $(3m/4+1)$ -th row to  $m$ -th rows through the data lines; a first scanning driver for controlling the scanning lines extending in the first to  $m/4$ -th rows; a second scanning driver for controlling the scanning lines extending in the  $(m/4+1)$ -th row to  $m/2$ -th rows; a third scanning driver for controlling the scanning lines extending in the  $(m/2+1)$ -th row to  $3m/4$ -th row; a fourth scanning driver for controlling the scanning lines extending in the  $(3m/4+1)$ -th row to  $m$ -th row; and at least two data lines of the plurality of data lines extending in each column pixel".

Independent claim 36 identifies a uniquely distinct feature "wherein at least two data lines of the plurality of data lines are arranged in a first pixel column, and the at least two data lines electrically connected to different pixels which are arranged in the first pixel column and wherein at least two data lines of the plurality of data lines are arranged in a second pixel column, and the at least two data lines electrically connected to different pixels which are arranged in the second pixel column".

Independent claim 37 identifies a uniquely distinct feature "wherein at least four data lines of the plurality of data lines are arranged in a first pixel column, and the at least four data lines electrically connected to different pixels which are arranged in the

Art Unit: 2629

first pixel column and wherein at least four data lines of the plurality of data lines are arranged in a second pixel column, and the at least four data lines electrically connected to different pixels which are arranged in the second pixel column".

The closest art, Stewart et al. as discussed in the previous Office Action, either singularly or in combination, fails to anticipate or render obvious the above limitations obvious.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (571) 272-7692. The examiner can normally be reached on from Monday to Friday between 10:00AM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(571) 273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Art Unit: 2629

drive, Arlington, VA, Sixth Floor (Receptionist).


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance



Art Unit 2629

Date 9/13/2007



RICHARD HJERPE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600